INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

KESSEL rainwater pumping system *Aqabull®* with switch unit *Aqatronic S/K*

Aqabull® with switch unit Aqatronic S
Aqabull® with switch unit Aqatronic K

Art.#. 85 101
Art.#. 85 201

Art.#. 85101

Product advantages

- Plug-in compact unit
- Installation below the backwater level possible
- Fully automatic operation
- With integrated on-demand drinking water feeding unit tested according to DIN 1989
- Smooth pump operation
- High operational safety
- Nationwide service network

The installation and service of this unit should be carried out by a licensed professional servicer

company - telephone number | Date | town | stamp

Subject to technical amendment

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KESSEL

Dear customer,

we are pleased that you have decided to buy a KESSEL product.
The entire system was subjected to a stringent quality control before it left our factory. Nevertheless, please check immediately whether the system has been delivered to you complete and undamaged. In case of any transport damage, please refer to the instructions in the chapter "Warranty" in this manual.
These installation, operating and maintenance instructions contain important information that has to be observed during assembly, operation, maintenance and repair. Prior to carrying out any work on the system, the operator and the responsible technical personnel must carefully read and heed these instructions.

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1. Safety Insructions

The personnel for assembly, operation, maintenance and repair must possess the appropriate qualification for this type of work. The area of responsibility, the authority and the supervision of personnel must be exactly regulated by the operator.
The operational safety of the system supplied is only guaranteed when it is used in accordance with the regulations. The limits of the technical specifications may not be exceeded on any account.
This system contains electric charges and controls rotating mechanical plant components.
Non-compliance with the operating instructions may result in considerable damage to property, personal injuries or fatal accidents.
During assembly, operation, maintenance and repair of the system, the regulations for the prevention of accidents, the pertinent DIN and VDE standards and directives, and the regulations of the local power supply industry must be heeded.
The system represents one component in a whole plant. Please therefore also heed the operating instructions for the system as a whole and the individual components. During assembly, maintenance, service and repair work on one of the components, the system as a whole must always be put out of operation and secured against unintentional restart.

Warning!

The system must not be operated in potentially explosive areas.

The switch unit is live and must not be opened. Only qualified electricians may carry out work on electrical facilities. The term qualified electrician is defined in VDE 0105.

The pump housing must not be opened. Work on the pump exceeding the scope of the activities described in the chapter "Service and maintenance" is not permissible.

It must be ensured that the electric cables as well as all other electrical system components are in a faultless condition. In case of damage, the system may on no account be put into operation.

Conversions or changes to the system may only be carried out in agreement with the manufacturer. For safety reasons, use original spare parts and accessories approved by the manufacturer. The use of other parts may void the liability for any consequences arising thereof.

The system does not influence the quality of the service water.

Caution!

In the case of backwater, wastewater from the sewer can be pushed back into the service water network.

In the event of damage, water can leak from the basic unit. Danger of slipping!
The water must be discharged by installing a floor drain, for example.

The service water is not suitable for consumption and personal hygiene.
Signs saying “Caution: Not drinking water” must be attached to all tapping points.

The basic tank can fall off the wall if not secured properly or if installation is faulty.
Risk of injury! Care must be taken that the wall and/or the brackets have a sufficient load bearing capacity.

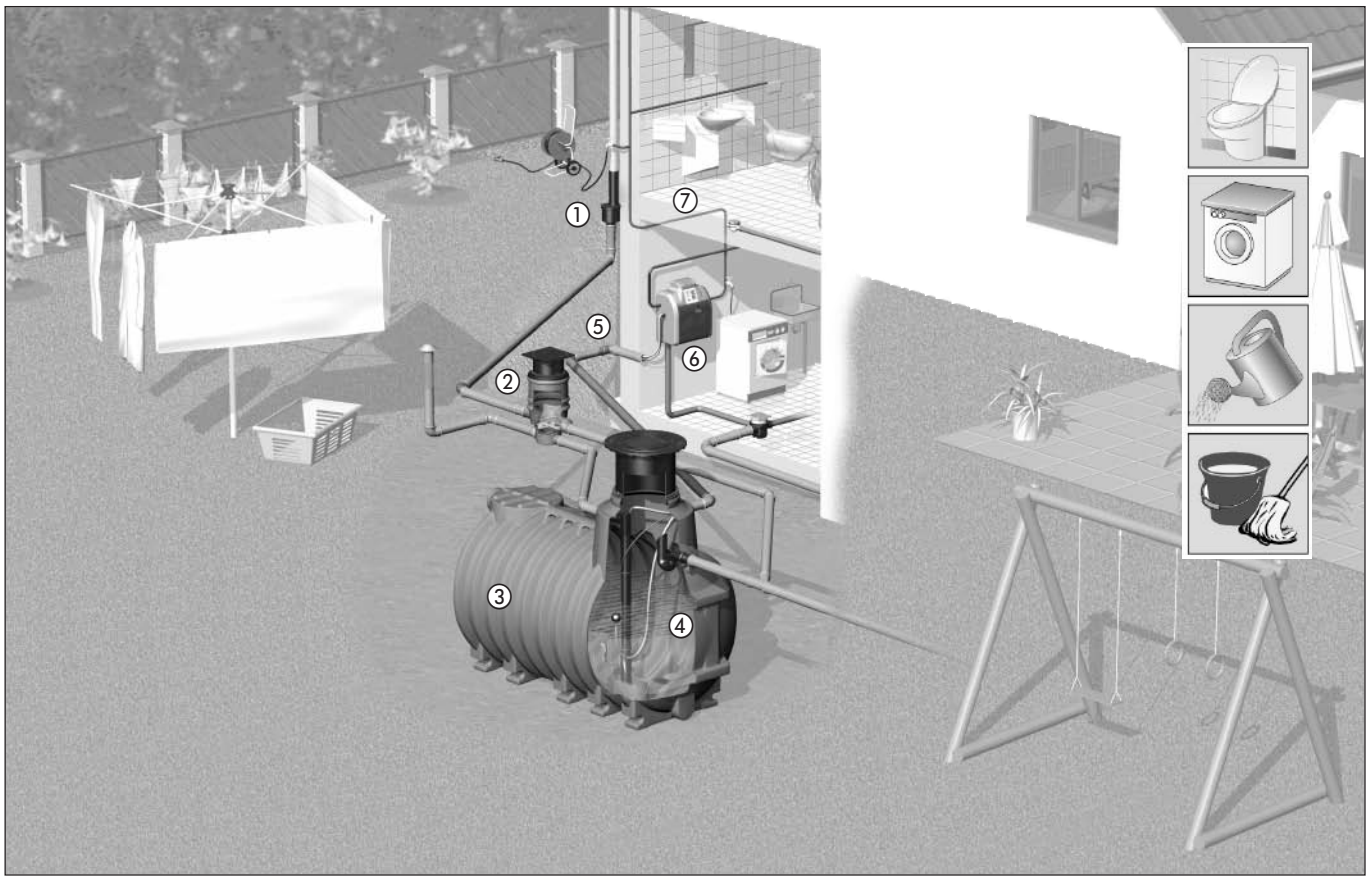
Ladders or similar must not be leant against the basic tank. Suitable access steps must be provided for work on the system.

2. General

2.1 Area of application:

The KESSEL rainwater pumping system *Aqabull®* requires almost no servicing. It is used for supplying service water to single family and multi-family homes. The automatic feeding of rainwater from a cistern or the on-demand feeding of drinking water if the cistern is empty guarantees reliable service water supply.

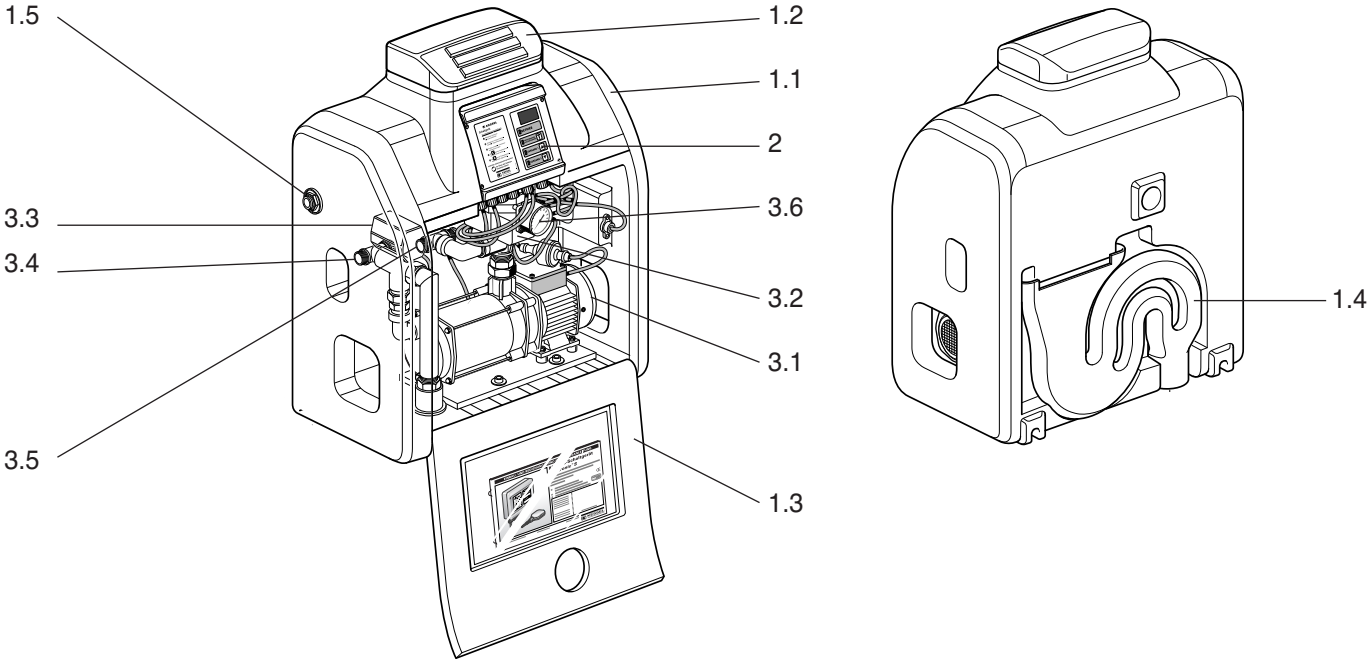
The service water can be used for watering gardens, flushing toilets, washing clothes and cleaning. The KESSEL rainwater pumping system Aqabull® has been designed for free-standing set-up (above and below the backwater level) in frost-protected, flood-proof and dry rooms. You will find more details about the system design in the chapter “Technical data”.



① Drainpipe
② Rainwater filter System 400
③ Rainwater storage tank *Aqabase®*-Komfort
④ Suction coarse filter, floating
⑤ Empty conduit seal DN 150
⑥ Rainwater pumping system *Aqabull®* with Switch unit Aqatronic S
⑦ Service water network

2. General

2.2 Plant description:
The KESSEL rainwater pumping system *Aqabull*® with switch unit Aqatronic S or Aqatronic K is made up of the following assemblies:



1. Basic unit
1.1 Drinking water feeding tank
1.2 Cover
1.3 Installation door
1.4 Emergency overflow
1.5 Floating switch for drinking water
2. Control unit
3. Pump unit
3.1 Multi-stage rotary pump
3.2 Automatic pressure switch
3.3 3-way switch-over valve
3.4 Suction connection service water
3.5 Pressure connection service water
3.6 “RESET” button

2. General

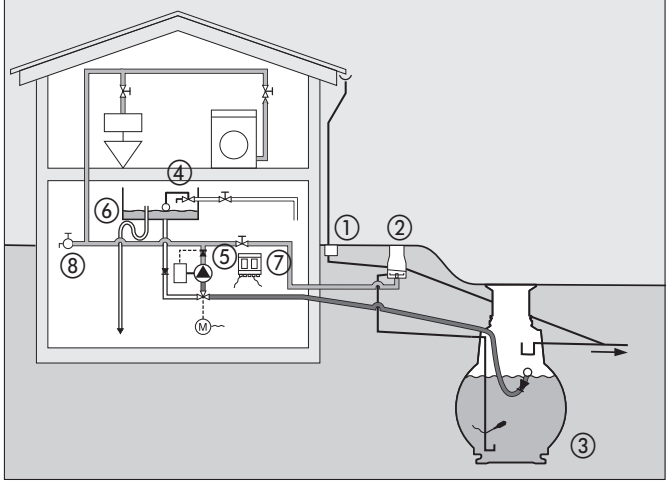
2.3 Functional description:
The pump unit comprises a multi-stage regenerative rotary pump and the automatic pressure switch. The maintenance-free automatic pressure switch has an automatic switch on/off function geared towards demand which absorbs any pressure blows, integrated dry-run protection and a back-water flap. The pump unit is located behind the installation door and is mounted on vibration dampers to guarantee minimum operating noise.

Rainwater mode:
If there is a drop in pressure in the service water network caused by a consumer being switched on, the rotary pump is switched on by the automatic pressure switch. Rainwater is suctioned out of the cistern and fed into the service water network through the pressure pipe connection of the automatic pressure switch. If the consumer is turned off, the automatic pressure switch switches the pump off after a brief run-on time. This flow-dependent switch-off guarantees constant pressure.

Mains refill mode with drinking water:
Two different switch units are available for controlling the fully automatic drinking water feeding.
► The **KESSEL-Switch unit *Aqatronic® S*** controls the drinking water feeding through a floating switch installed in the cistern.
► With the **KESSEL-Schaltgerät *Aqatronic® K*** switch unit *Aqatronic® K* the water level in the cistern is determined by an ultrasonic sensor and indicated on a digital display on the switch unit. An optical and acoustic warning is given in the event of backwater from the sewer (when an alarm point is set). The system switches automatically to drinking water mode. Further switching points can be programmed as required.

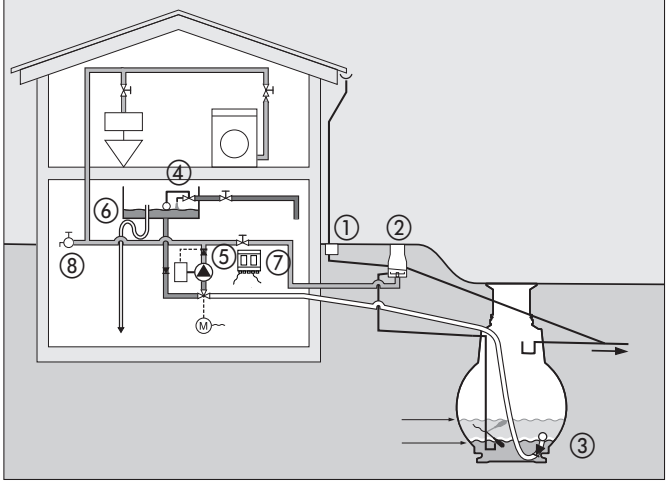
Drinking water feeding can also be activated manually with both switch units.
If the water level in the cistern drops to below a defined minimum level, the switch unit opens a 3-way switch-over valve if required. Drinking water is suctioned directly from the drinking water feeding tank and pumped into the service water network. Thanks to the floating switch in the drinking water feeding tank, only the amount of drinking water required is fed automatically. As soon as rainwater enters the cistern again, the ***Aqatronic®***-switch unit switches back to rainwater mode.

Flow route rain water mode



① Rainwater drainage
② Rainwater filter
③ Rainwater feeding with fixtures
④ drinking water feeding

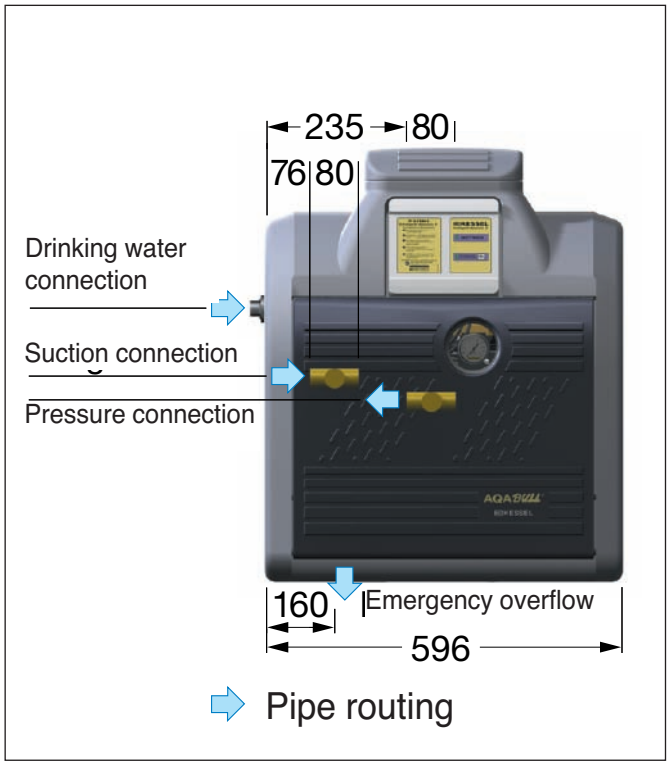
Flow route feeding mode

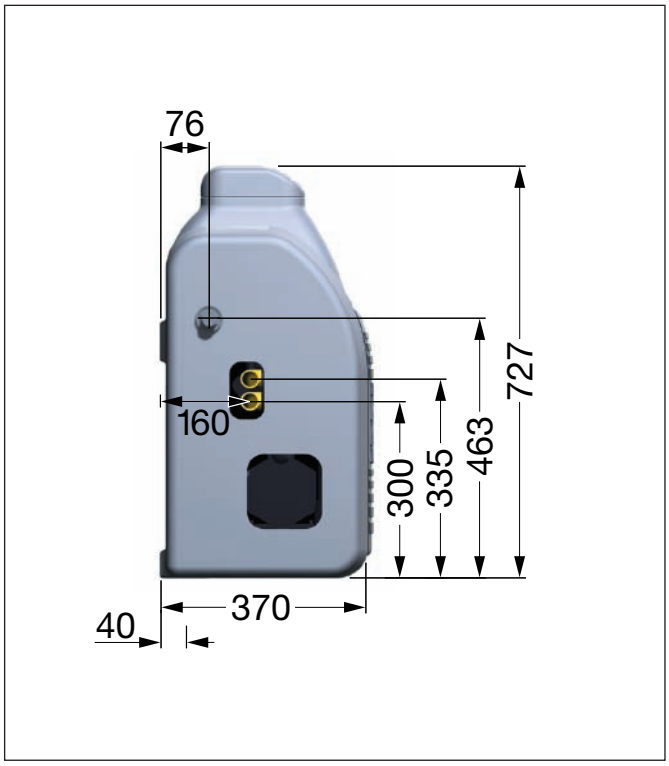


⑤ Pump with automated pressure switch
⑥ Emergency overflow with odour trap
⑦ Switch unit *Aqatronic* S
⑧ Water tap (non drinking)

3. Technical Data

3.1 Dimensions and weight:





Weight empty approx. 28 kg
Operation weight (full with water) approx. 45 kg

3.2 Control unit

The technical data can be found in the enclosed original operating manual.

3.3 Floating switch

Operating temperature	0 - 50°C
Operating pressure	3,5 bar P min/max 0,2 - 6 bar

3.4 3-way switch-over valve

Voltage / Frequency	230 V AC / 50 Hz
Power consumption	4 VA (with valve movement)
Protective rating	IP 40
Operating time	7 seconds
Max. pressure difference	4 bar
Cv-values	7,7 (corresponds to a drop in pressure of about 0.17 bar with a flow rate of 3 m³/h)

Further specific technical data can be found in the enclosed original operating manual

3.5 Automatic pressure switch

Voltage / Frequency	230 V AC / 50 Hz
Switching capacity	max 10 A or max 1,8 kW
Protective rating	IP 55
Mains connection cable	1,4 m
Network connection	0,3 m
Switch-on point	2,4 bar (uppermost tapping point is max. 20 metres above the automatic pressure switch)
Switch-off point	Water consumption ≤ 0,5 l/min or during dry run
Pressure difference	min 0,7 bar (between switch-on and switch-off point)

The pump is put back into operation after dry running by pressing the “RESET” button

Drop in pressure	approx. 0.3 bar with a flow rate of 3 m³/h
Manometer	Display range 0 - 10 bar
Pumping medium	Clear water
Dimensions l x w x h in mm	214 x 128 x 154
Inlet nozzle	1” Outer thread
Outlet nozzle	1” inner thread

Further specific technical data can be found in the enclosed original operating manual.

3. Technical Data

3.6 Pump

Voltage / Frequency	230 V AC / 50 Hz	Permanent operation	possible
Power consumption	800 W	Suction connection	1” inner thread
Protective rating	IP 55	Pressure connection	1” inner thread
Insulation class	F	Materials	rust-free
Speed	2900 min^{-1}	Operating temperature	max. 40°C
Thermal protection	integrated	Dimensions l x b x h in mm:	413 x 121 x 162
Mains connection cable	0,3 m	Weight:	11 kg
Pumping medium	Clear water		

Table 1: Pumping data *Aqabull®* pump

Pumping capacity Q (m^3/h)	0,5	1	1,5	2	2,5	3	3,5
Pumping capacity Q (l/min)	8	17	25	33	42	50	58
Pumping capacity in m	42	40	37	33	27	21	14

Diagram 1: Pumping height as a function of pumping capacity for the *Aqabull®* pump

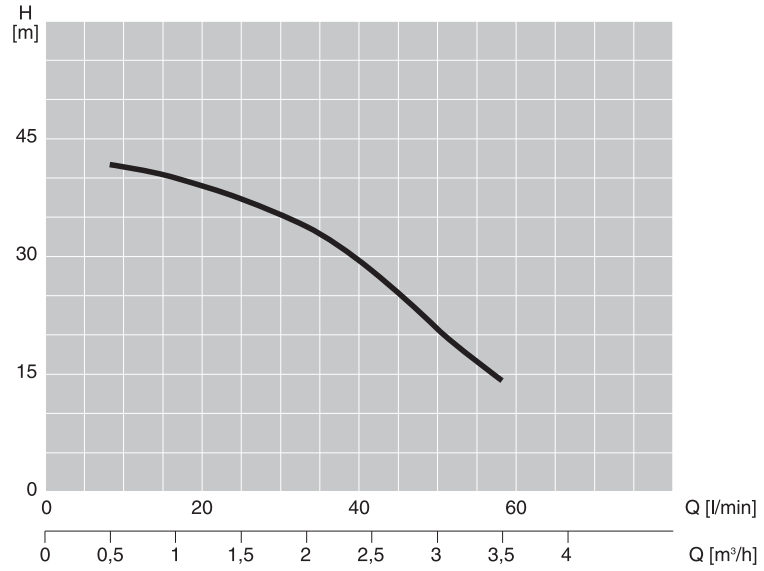
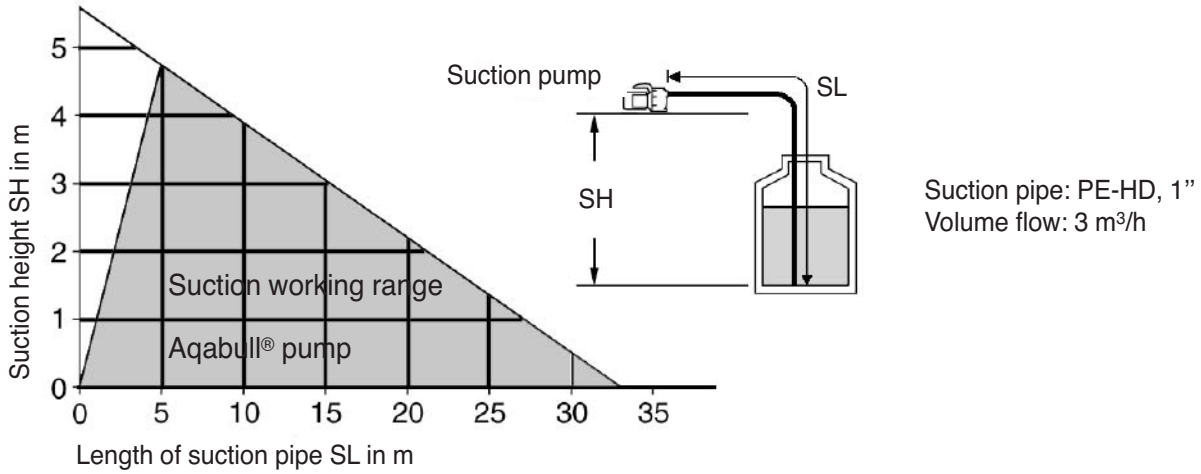


Diagram 2: Suction height as a function of the length of the suction pipe for the *Aqabull®* pump



Suction pipe: PE-HD, 1”
Volume flow: 3 m^3/h

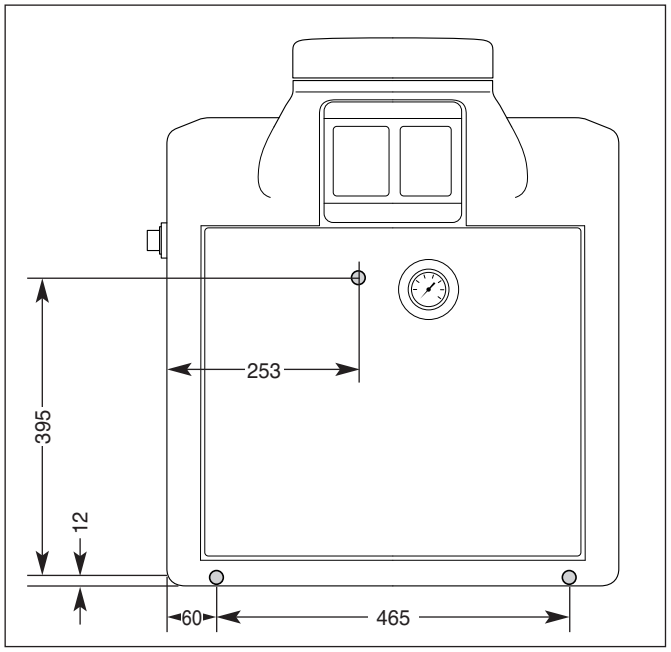
4. Installation and assembly

The chapter "Safety instructions" must be heeded!

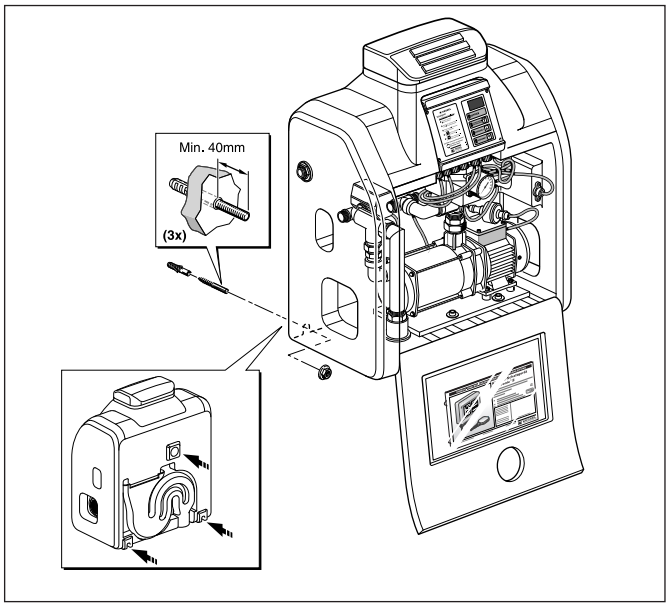
Take the KESSEL rainwater pumping system Aqabull® out of the packaging and remove the transportation safety devices. The accessories are in the same box. The KESSEL rainwater pumping system Aqabull® has been designed in such a way that the inlet and pressure connection for the service water can be installed on the left and/or right as required. There are openings on both sides in the basic tank for this purpose.
The KESSEL rainwater pumping system Aqabull® must be installed in dry, frost-free and ventilated rooms. It can also be set up below the backwater level.

4.1 Wall mounting

► When choosing where to install the unit, care must be taken that there is about 50 cm space required above the system for setting and servicing work. The wall chosen must be suitable for bearing the system weight (approx. 45 kg with water).



►Mark the three drill holes for the attachment as required on the wall and drill 3 x 10 mm holes using a drill. Insert the enclosed dowels and screw in the stay bolts so that they protrude by at least 40 mm.
Set the basic tank with emergency overflow inserted onto the stay bolts, align using a spirit level and tighten the collar nuts.



4.2 Connecting the emergency overflow

In rooms with a floor drain, it suffices to discharge the overflowing water out of the basic unit through the emergency overflow without connection to the sewage system, since no water escapes during normal mode.
If there is no floor drain available, the emergency overflow DN 70 is connected directly to the sewage network.
If any changes are made to the emergency overflow, the DVGW approval is no longer valid. Safety and hygiene are no longer guaranteed.
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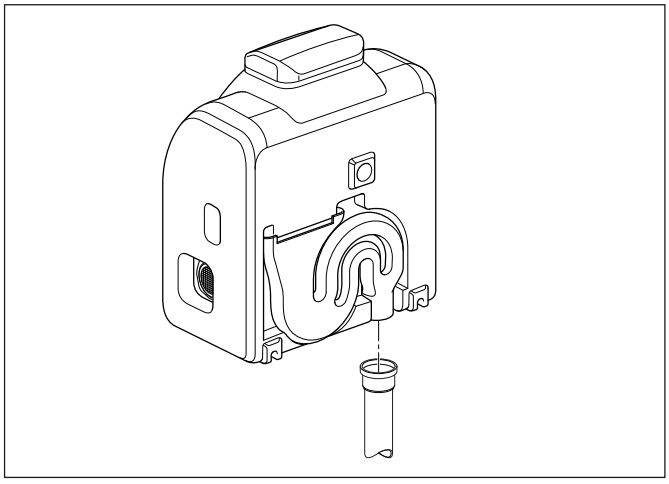
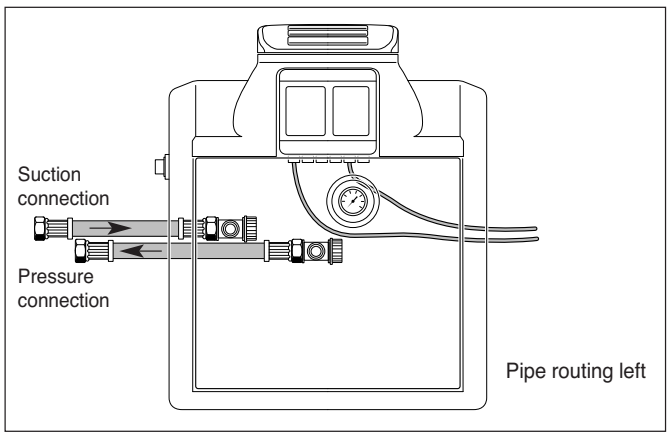


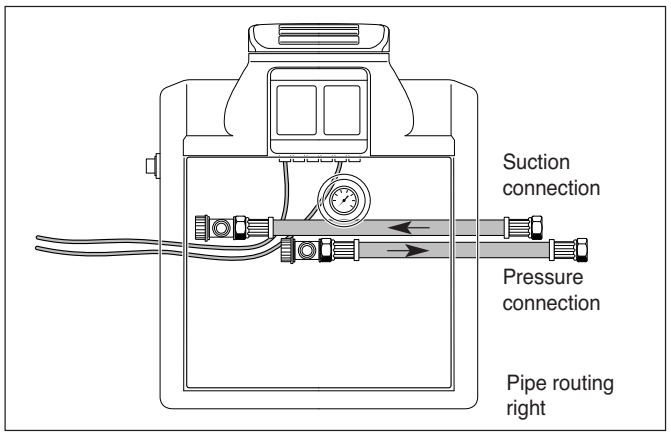
4.3 Drinking water connection

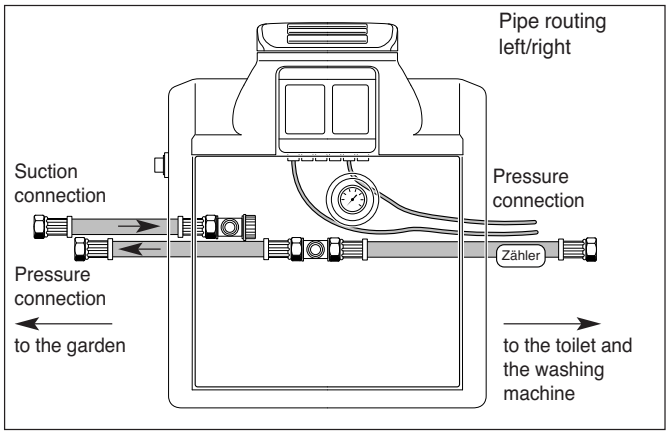
► We recommend a 3/4" flexible reinforced hose for connection to the drinking water network. An additional shut-off valve makes all servicing work easier.
► If water pressure is greater than 3.5 bar or if there are large fluctuations in pressure, a pressure reducer must be installed in the drinking water network. An upstream water hammer damper prevents noise in the pipeline and backflow waves.
► To be able to safely guarantee the function of the floating switch and 3-way switch-over valve, a fine filter must be installed in the drinking water network on site.
No liability will be accepted for functional problems or damage caused by a lack of fine filter.
► Check the firm fit of the floating switch and the free movement of the floating arm in the basic tank. Be very careful to make sure you do not damage the valve.
► Before initial operation, the drinking water pipe feeding the system must be flushed and cleaned.

4.4 Connecting the pump

► Connect the pump to the service water network. The user can choose how the pipes are to be connected.
► Caution! According to DIN 1988 Part 2, there must be a distinct difference between the pipes belonging to the service water network and those belonging to the drinking water network







► We recommend the use of a 1" flexible reinforced hose for connection to the service water network. In addition, the pressure connection should be fitted with a shut-off valve with low flow resistance. This makes later servicing work much easier. A surge tank of a sufficient size mounted on site protects the system from impermissible pressure surges, excess pressure through thermal expansion and avoids the pump switching on and off too frequently.
► We recommend the KESSEL suction fine/coarse filter, floating, art. no. 85050/85051 for suctioning water from the rainwater storage tank.
With this suction pipe, the rainwater is suctioned out of the cistern from the cleanest zone, approx. 15 cm underneath the surface of the water. The formation of a sediment layer on the floor of the tank as well as suspended particles such as pollen or soot particles on the surface of the water cannot be completely avoided even if filters are used.
► If the system is operated with a rigid suction pipe, the suction strainer must be positioned in such a way that no solids can be suctioned in. A distance of 15 - 20 cm to the floor of the tank must be observed. In addition, a backflow preventer must be installed.
► The suction pipe must be laid with a constant gradient to the cistern to avoid air pockets.
If this is not possible, an opening for ventilation or filling must be provided at the highest point in the suction pipe.
► The distance between the pump and the rainwater storage tank should be as short as possible; please heed the “Technical data” chapter.
► The suction pipe must be absolutely leakproof to guarantee automatic pump suctioning.
► The suction pipe must be laid at a frost-free depth to prevent it freezing.
► We recommend always using a KG empty conduit DN 150 when routing all pressure and inlet pipes and other connection lines in order to make access easier for any servicing and repair work later.
► The backwater-proof KESSEL empty conduit seal (art.-no. 85412) should be used wherever pipes pass from the cistern into a cellar room.

5. Electrical connection

Caution!
Connection may only be carried out by a qualified electrician. The relevant currently valid directives, laws and standards must be observed. Please heed the chapter "Safety instructions" and the operating manual for the switch unit used as well.

A double socket with earthed contacts is required for installation of the KESSEL rainwater pumping system *Aqabull®.*
Fuse 16 A slow-blow with residual current breaker 30 mA.

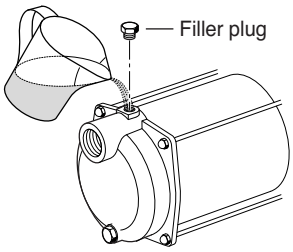
Splashwater can escape during servicing work on the system. Depending on the routing of the service water pipes, the double socket must be installed in a protected position at the side and underneath the system.
Please see the enclosed original operating manual for instructions on the installation of the ultrasonic sensor (switch unit *Aqatronic® K*) or the floating switch (switch unit *Aqatronic® S*).

6. Initial operation

The chapter "Safety instructions" must be heeded!

Caution!
► Before initial operation of the system, all the inlet and outlet pipes must be flushed. Particle size > 0.2 mm leads to serious damage to the rotary pump.
► Make sure that voltage and frequency of the mains supply correspond to the unit (see type plate).
► Never put the pump into operation dry!

6.1 Rainwater mode:
► Unscrew the filling nozzle on the pump housing and fill the pump body with water.



► Fill the suction pipe with water too. To do this, connect the end of the inlet pipe on the cistern side to a water connection, e.g. a garden hose, and open at least one consumer so that air can escape. When an inlet pipe with strainer is used, this must be screwed off first.
Fill the whole system by opening the feed valve until water is discharged without bubbles from the opened consumer on the pressure side. Remove the hose, screw the strainer back in place if appropriate.
This way, the system is reliably ventilated and is ready for immediate operation.
► Insert the mains plug of the automatic pressure switch and the respective KESSEL switch unit Aqatronic®. The pump starts up immediately..
► During initial operation, a consumer e.g. water tap must be opened the whole time so that the complete system can be ventilated. If the pump does not start up or stops again after a short time, the red **"RESET"** button on the automatic pressure switch must be pressed.
This process must be repeated until no air bubbles escape at the consumer.
As soon as the system has been completely ventilated, close all consumers. The pump achieves its maximum pressure, the unit switches off automatically.
► Depending on the height of the suction pipe, the suction time can be up to 5 minutes. If the pump still has not starting pumping after this, it must be filled up again.
If this still does not lead to the pump starting up, check the following:
Is the suction line absolutely leakproof?
Is the suction hose bent?
Has the maximum pumping height been exceeded?
► Check whether the floating switch or ultrasonic sensor has been installed and set in the rainwater storage tank according to the instructions in the operating manual for the KESSEL Aqatronic® switch unit. The switching point must be chosen in such a way that the system changes to drinking water feeding mode when the water level drops to less than 15 - 20 cm. This prevents the sediment layer being suctioned in.

6. Initial operation

6.2 Mains refill mode with drinking water:

► Check the firm fit of the floating switch and the free movement of the floating arm in the basic tank. Be very careful to make sure you do not damage the valve.
► Now open the feed to the floating switch. The drinking water feeding tank fills up with water. The floating switch closes after a short time. No water may escape via the emergency overflow.
► Only if the emergency overflow is connected to the sewer, overfill the tank by pressing the floating arm down carefully. The water level rises to the edge of the overflow and flows away through the emergency overflow. Check the emergency overflow for leaks.
► SOnce this setting work has been carried out, the system is operated for a certain time in feeding mode (see the operating instructions of the switch unit Aqatronic®) to ventilate these pipes too. If the system should run dry, proceed as described above.
► After checking the floating switch again, place the cover on the basic tank.
► Check all the connections for leaks and tighten if necessary.
► Close the installation door.

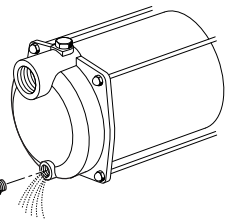
The air vents on the pump housing must not be covered up. Fresh air circulation must be guaranteed.

► Your KESSEL rainwater pumping system *Aqabull®* is now ready for operation

7. Service and maintenance

The chapter "Safety instructions" must be heeded!

The KESSEL rainwater pumping system *Aqabull®* requires almost no servicing.
► Avoid the pump running dry since the slip ring seal is cooled by liquid.
► If aggressive media are to be pumped, the pump must be rinsed after use.
► Empty the pump through the emptying plug if there is a danger of frost.



► If the KESSEL rainwater pump system *Aqabull® i*s to be at a standstill for longer periods, the pump body and automatic pressure switch must be emptied. If the system is not used at all for a longer period, the pump and the automatic pressure switch must be cleaned and stored in a cleaned and well-ventilated place
► Floating switch or ultrasonic sensor must be cleaned at regular intervals.
► The inlet and pressure pipes as well as all the connections must be checked for leaks occasionally and sealed if necessary.
► Fine or coarse filters in the floating suction pipe must be cleaned at regular intervals.
► Check the firm fit of the floating switch and the free movement of the floating arm in the basic tank. Be very careful to make sure you do not damage the valve.

► Only when the emergency overflow is connected to the sewer. The odour trap of the emergency overflow dries up over time. This must be filled at regular intervals to avoid odour pollution. Overfill the tank by pressing the floating arm down carefully. The water level rises to the edge of the overflow and flows away through the emergency overflow.

► To reduce foreign matter entering the feeding tank, the area around the system must be cleaned at regular intervals.

We recommend that you conclude a servicing contract with your installation company.

A draft contract is enclosed with this operating manual.

8. Faults and remedial measure

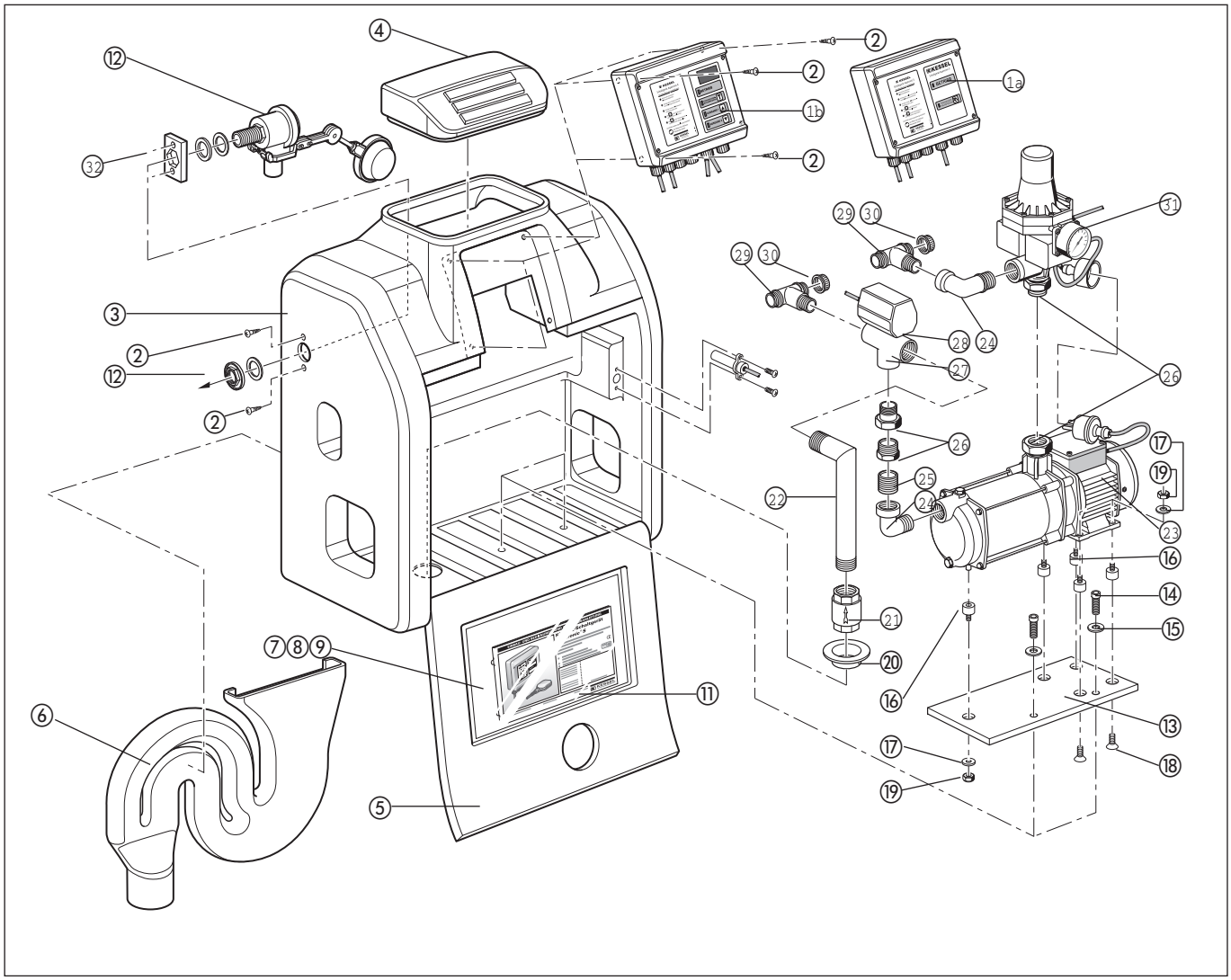
The chapter "Safety instructions" must be heeded!

► **Repairs and maintenance work on the electrical system and the pump unit may only be carried out by a qualified electrician or by the KESSEL Customer Services department.**

Possible faults	Cause	Remedial measure
Motor does not start up	► No mains voltage	► Check whether the mains plug is in the socket or if the socket is live
	► Pump wheel is blocked; the motor has been switched off by the thermal switch	► Have the pump serviced or cleaned by a specialist company
Pump does not suction water in	► Suction valve not in the water	► Attach suction valve underneath the surface of the water
	► Pump wheel without water	► Fill the pump with water or fill up the suction hose
	► Air in the suction pipe	► Check the suction pipe for leaks
	► Suction valve leaking	► Clean the suction valve
	► Strainer blocked	► Clean the strainer
	► max. suction height or length of suction pipe has been exceeded	► Check the suction height, change the location of the pump if necessary (or the length of the suction pipe)
Pump does not switch off	► Possible open tapping point	► Close the tapping point
	► Tapping point leaking	► Seal the tapping point
Insufficient pumping capacity	► Suction height too high	► Check the suction height and change the location if necessary
	► Suction strainer clogged	► Clean the strainer
	► Water level decreasing	► Set the suction valve deeper
	► Pump requires cleaning/ maintenance	► Remove the plug from the mains! Have the pump serviced or cleaned by a specialist company, replace wearing parts if necessary
Thermal switch switches the pump off	► Motor is overstrained on account of excessive friction caused by soiling in the pump housing	► Have the pump serviced or cleaned by a specialist company
		► Prevent foreign matter being suctioned in

9. Spare parts and accessories

9.1 Spare parts



⑴a	210-075	Assembly switch unit t *Aqatronic* S
	210-069	+ Floating switch
⑴b	210-315	Assembly switch unit *Aqatronic* K
⑵	134-025	PT screw
⑶	234-003	Basic tank
⑷	234-002	Cover
⑸	234-005	Installation door
⑹	234-006	Emergency overflow
⑺	010-087	Installation instructions for *Aqabull*®
⑻	010-010	Servicing contract
⑼a	010-104	Installation instructions for *Aqatronic* S
⑼b	010-135	Installation instructions for *Aqatronic* K
⑾	234-010	Zipped pocket
⑿	234-024	Floating switch
⒀	234-007	Pump plate
⒁	017-199	Cylinder head screw
⒂	017-012	Washer
⒃	210-264	Bearing buffer
⒄	017-041	Washer
⒅	017-184	Countersunk screw
⒆	017-046	Nut
⒇	182-565	Pipe duct seal
(21)	210-049	Non-return valve
(22)	234-012	Bent pipe section
(23)	210-056	Pump
(24)	210-094	Bend
(25)	234-011	Pipe nipple
(26)	234-008	Screw attachment
(27)	210-351	3-way valve body
(28)	210-349	Drive for 3-way valve body +
	210-357	Connection cable
(29)	210-072	T-piece
(30)	210-103	Threaded cap with seal
(31)	210-036	Automatic pressure switch
(32)	234-023	Anti-twist protection

9. Spare parts and accessories

9.2 Accessories

	Description	Ø	Art. #	Piece/ Pack	Piece/ palette
Art.# 85 050	**KESSEL-suction fine filter, floating** for suctioning unfiltered rainwater from rainwater storage tanks, floating version with floating ball made of PE, with suction hose (3m long; standard suction hose and connection) and hose fitting, filter body with filter made of stainless steel, mesh width 0.23 mm, all connections 1 inch, with backflow protection device. **Product advantages:** ● Guarantees suctioning of the cleanest water about 15 cm underneath the water surface. ● Protects the pump from suctioning in damaging particle sizes. ● Large flow possible thanks to high-quality non-return valve.	-	85 050	1	-
Art.# 85 051	**KESSEL suction coarse filter, floating** for suctioning rainwater from rainwater storage tanks, floating version with floating ball made of PE, with suction hose (3 m long; standard suction hose and connection and hose fitting, filter body with filter made of stainless steel, mesh width 1.2 mm, all connections 1 inch, with backflow protection device. **Product advantages:** ● Guarantees suctioning of the cleanest water about 15 cm underneath the water surface. ● Large flow possible thanks to high-quality non-return valve.	-	85 051	1	-
	KESSEL empty conduit seal DN 150 made of plastic With two seals each DN 32/DN 40, one seal DN 50 and one blind plug each DN 40 and DN 50. Suitable for KESSEL rainwater pumping systems Aqabull®/Aqadive® and rainwater filters with/without back-flushing unit	-	85 412	1/-	-

9. Spare parts and accessories

	Description	Ø	Art. #	Piece/ Pack	Piece/ palette
	KESSEL leak probe Optical probe with 5 m cable for monitoring the level of the water in the feeding tank of the KESSEL rainwater pumping system ***Aqabull®*** / ***Aqadive®*** with switch unit ***Aqatronic K***.	-	80 085	1	-
 Art. # 85 073	**KESSEL sticker** **“Not drinking water”** for marking the pipes as non-drinking water pipes. L x W: 26 x 80 mm. **5 pc/box** **KESSEL sign** **“Not drinking water”** for marking the tapping point, L x W: 60 x 120 mm. **2 pc/box** **KESSEL sign “No cross-connection to the drinking water network (heed DIN 1988)”** for attachment near the water meter, L x W: 105 x 148 mm. **1 pc/box**	-	85 073	1 pack	-

9. Spare parts and accessories

	Description	Ø	Art. #	Piece/ Pack	Piece/ palette
Art.# 85 020	**KEKESSEL filling level gauge** for the analogue display of the contents of the rainwater storage tank, with 10 m control pipe and pneumatic universal tank contents gauge for all tank sizes and heights.	-	85 020	1	-
Art.# 72 100	**KESSEL *Staufix*® flood slide, plastic** Flap closes automatically and there is an emergency valve that can be closed by hand.	ø 110 ø 125 ø 160 ø 200	72 100 72 125 72 150 72 200	- - - -	- - - -

OD	100	125	150	200
L	355	390	460	530
H	140+60	148+60	165+60	178+60

L = Length in mm
H = Height in mm

10. Warranty

1. In the case that a KESSEL product is defective, KESSEL has the option of repairing or replacing the product. If the product remains defective after the second attempt to repair or replace the product or it is economically unfeasible to repair or replace the product, the customer has the right to cancel the order / contract or reduce payment accordingly. KESSEL must be notified immediately in writing of defects in a product. In the case that the defect is not visible or difficult to detect, KESSEL must be notified immediately in writing of the defect as soon as it is discovered. If the product is repaired or replaced, the newly repaired or replaced product shall receive a new warranty identical to that which the original (defective) product was granted. The term defective product refers only to the product or part needing repair or replacement and not necessarily to the entire product or unit. KESSEL products are warranted for a period of 24 month. This warranty period begins on the day the product is shipped form KESSEL to its customer. The warranty only applies to newly manufactured products. Additional information can be found in section 377 of the HGB.

   In addition to the standard warranty, KESSEL offers an additional 20 year warranty on the polymer bodies of class I / II fuel separators, grease separators, inspection chambers, wastewater treatment systems and rainwater storage tanks. This additional warranty applies to the watertightness, usability and structural soundness of the product.
   A requirement of this additional warranty is that the product is properly installed and operated in accordance with the valid installation and user's manual as well as the corresponding norms / regulations.

2. Wear and tear on a product will not be considered a defect. Problems with products resulting from improper installation, handling or maintenance will also be considered a defect.

   Note: Only the manufacturer may open sealed components or screw connections. Otherwise, the warranty may become null and void

01.06.2010

CE

KESSEL

EU-KONFORMITÄTSERKLÄRUNG
EC declaration of conformity/ Déclaration CE de conformité

Nach der Maschinenrichtlinie 2006/42/EG, der Niederspannungsrichtlinie 2006/95/EG, Richtlinie der elektromagnetischen Verträglichkeit 89/336/EWG und Richtlinie für Druckgeräte 97/23/CEE.
According to the Machine Guidelines 2006/42/EG, the Low Voltage Guidelines 2006/95/EG, Electromagnetism Guidelines 89/336/EEC and the Pressure System Guidelines 97/23/CEE.
Selon les directives mécaniques 2006/42/EG, les directives de basse tension 2006/95/EG, les directives pour la compatibilité électromagnétique 89/336/EEC et les directives pour appareil à pression 97/23/CEE

KESSEL AG
Bahnhofstraße 31
D-85101 Lenting

erklären wir, / we declare, / nous déclarons,

dass das Produkt/ that the product/ que le produit

KESSEL- Regenwasserpumpanlage *Aqabull*®
mit Schaltgerät *Aqatronic S/K*

KESSEL Rain water pumping system *Aqabull*®
with switch unit *Aqatronic S/K*

KESSEL- Gestionnaire *Aqatronic S/K*
***pour eaux de pluie Aqabull*®**

den folgenden Normen entspricht:/ is in agreement with/ est en accord avec:

ISO 12100-1/A1
ISO 12100-2/A1
ISO 14121-1
EN 809/A1
DIN 1988-4
EN 1717

Zur Kennzeichnung der Übereinstimmung der Produkte ist auf dem Typenschild das Zeichen der Richtlinie 93/68/EWG angebracht./ The 93/68/EEC code mark should be located on the ID plate on the product./ Le marquage et l´indentification du produit figurent sur la plaquette d´identification selon les directives 93/68 EWG.

Lenting, den 5.10.2010

M. Rinckens
Leiter Innovationsmanagement / Dokumentationsverantwortlicher
Innovation Management Manager / Responsible for Documentation
Responsable du management pour innovation et de la documentation

E. Thiemt
Vorstand
Managing Board
Conseil d´administration

11. Important contacts / Info

Separator Type: _____

Day / Hour _____

Project description /Building services supervisor _____

Address _____

Telephone / Fax _____

Builder _____

Address _____

Telephone / Fax _____

Planner _____

Address _____

Telephone / Fax _____

Contracted plumbing company _____

Address _____

Telephone / Fax _____

KESSEL-Commissions no.:

System operator /owner _____

Address _____

Telephone / Fax _____

User _____

Address _____

Telephone / Fax _____

Person of delivery _____

Other remarks _____

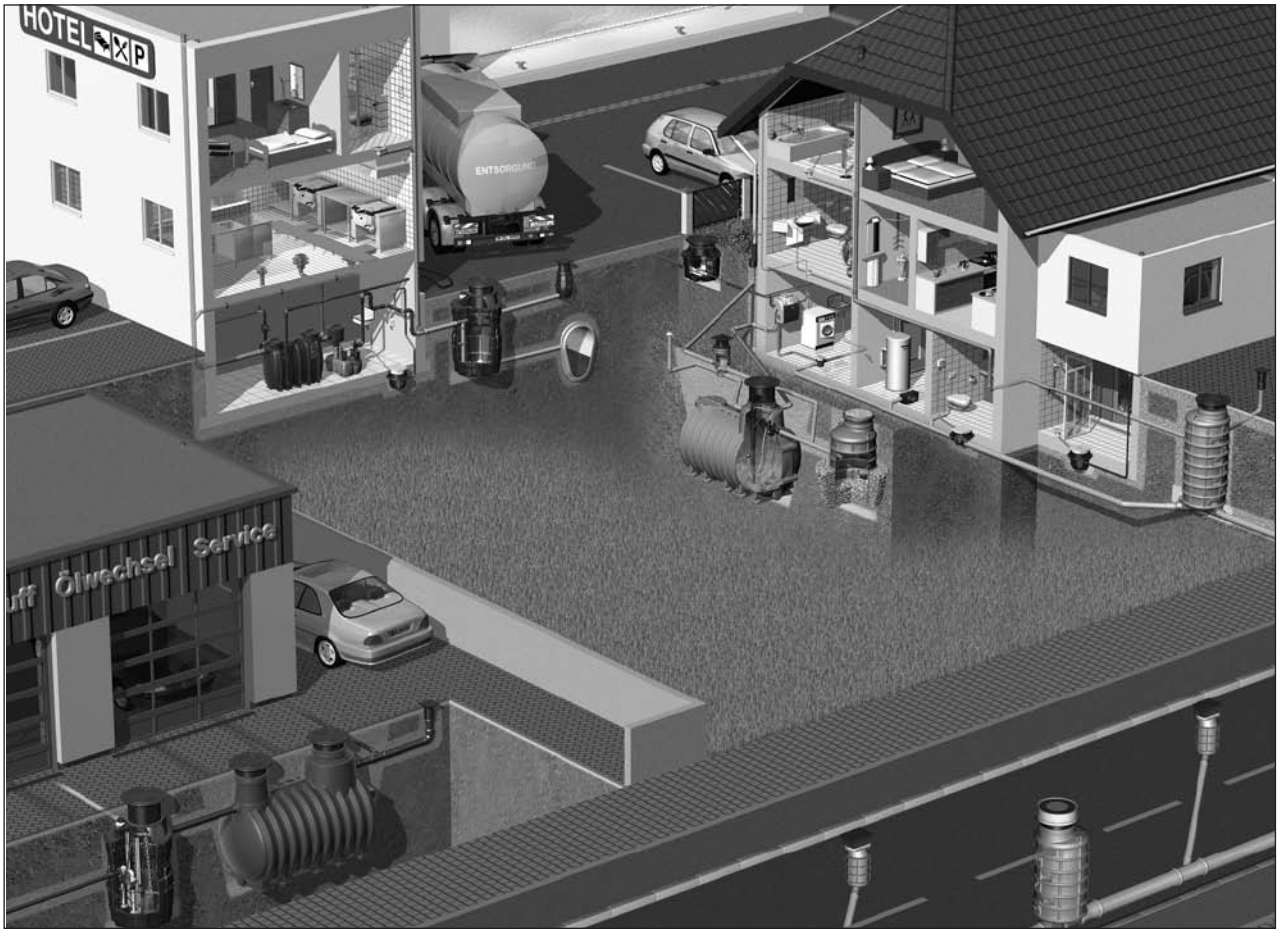
The system operator, and those responsible, were present during the commissioning of this system.

_____	_____	_____
Place and date	Signature owner	Signature user

Notice

Notice

Everything for drainage



- Backwater valves and cleanouts
- Polymer and Ecocast drains
- Volatile liquid traps
- Lifting stations, pumps, warning and control units
- Rainwater management systems
- Grease separators
- Oil/fuel and coalescence separators
- Inspection chambers
- Custom projects for industrial applications

KESSEL